

**ORDER UNDER APPEAL**



STATE OF MAINE  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
STATE HOUSE STATION 17 AUGUSTA, MAINE 04333

DEPARTMENT ORDER

IN THE MATTER OF

STATE OF MAINE, ACTING THROUGH THE )	MAINE HAZARDOUS WASTE,
STATE PLANNING OFFICE )	SEPTAGE AND SOLID WASTE
OLD TOWN, PENOBSCOT COUNTY, MAINE )	MANAGEMENT ACT
TREATED BIOMEDICAL WASTE )	
#S-020700-WU-AJ-N )	
(APPROVAL WITH CONDITIONS) )	NEW LICENSE

Pursuant to the provisions of the *Maine Hazardous Waste, Septage and Solid Waste Management Act*, 38 M.R.S.A. §§1301 to 1319-Y and 06-096 CMR 2 *Rules Concerning the Processing of Applications and Other Administrative Matters* (last amended April 1, 2003), 06-096 CMR 400 *Solid Waste Management Rules: General Provisions*, (last amended February 18, 2009), 06-096 CMR 401 *Solid Waste Management Rules: Landfill Siting, Design and Operation*, (last amended September 6, 1999), 06-096 CMR 405 *Solid Waste Management Rules: Water Quality Monitoring, Leachate Monitoring, and Waste Characterization*, (last amended June 16, 2006) and 06-096 CMR 900 *Biomedical Waste Management Rules* (last amended August 4, 2008), the Department of Environmental Protection ("Department") has considered the application of the STATE OF MAINE, STATE PLANNING OFFICE ("SPO" or "Applicant"), with all supportive data, agency review comments, and other related materials on file, and FINDS THE FOLLOWING FACTS:

1 APPLICATION SUMMARY

- A. Application: The applicant has applied for the ongoing disposal of up to 5,000 tons per year of treated biomedical waste generated by Associated Health Resources, Inc. (AHR) located in Pittsfield, Maine.
- B. History: The applicant owns the Juniper Ridge solid waste disposal landfill facility in Old Town, Maine for the disposal of municipal and industrial solid waste generated in Maine. The AHR treatment facility has been processing biomedical waste using non-incineration procedures since 2005. Department Order #S-01987-WU-NB-N, dated June 20, 2005, approved the ongoing disposal of approximately 2,000 tons per year of treated biomedical waste from the AHR facility at the Pine Tree Landfill in Hampden, Maine. As of December 31, 2009, the Pine Tree Landfill ceased accepting wastes for disposal. Prior to that date, Department Order #S-10735-WT-WZ-N, dated December 30, 2009, approved the onetime disposal of treated biomedical waste from the AHR facility at the Waste Management Disposal Services of Maine (WMDSM) Crossroads Landfill. That approval will expire on June 30, 2010.

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- C. Summary of Proposal: SPO requests approval for the ongoing disposal of up to 5,000 tons per year of treated biomedical waste generated by Associated Health Resources, Inc. (AHR) located in Pittsfield, Maine. The AHR facility accepts certain biomedical wastes from Maine Hospital Association members and various other generators including laboratories, medical practices, dentists and veterinary practices. Waste is accepted for processing from sources within Maine as well as other states and Canada. Waste accepted for treatment is placed in a single treatment vessel and steam heated to 284 degrees F. at 40 pounds per square inch gauge (psig), rendering the waste non-infectious.

## 2. PUBLIC PARTICIPATION

On October 13, 2009, SPO submitted the application for the ongoing disposal of treated biomedical waste from AHR. On October 28, 2009, the application was accepted as complete for processing. Interested parties had until November 17, 2009 to request a public hearing on the application or that the Board of Environmental Protection assume jurisdiction of the application. On November 16, 2009, the generator (AHR), the applicant (SPO), the landfill operator (Casella Waste Systems) and the Department attended a meeting of the Juniper Ridge Landfill Advisory Committee to discuss how the waste is generated, how it would be managed at the landfill and the application review process. In addition to questions posed by the Committee members, members of the public also asked questions of the participants. By November 17<sup>th</sup>, the Department had received two requests for the Department to hold a public hearing on the application. No requests for the Board of Environmental Protection to assume jurisdiction of the application were received by the Department. On December 4, 2009, the Commissioner issued letters to the two parties requesting a public hearing on the application, denying their request for a public hearing. In considering the reasons stated by the parties for requesting a public hearing, the Commissioner concluded that the questions and concerns raised by the parties could be addressed during the normal course of reviewing the application. On December 10, 2009, Department staff meet with members of the public and attended a meeting of the Juniper Ridge Landfill Advisory Committee to discuss licensing criteria for the application and the review process and timelines for the application. On February 22, 2010, Department staff visited the AHR facility in Pittsfield to review the waste handling and treatment processes. During the course of reviewing the application, the Department has received questions and comments from local residents, the City of Old Town, the Juniper Ridge Landfill Advisory Committee, the Penobscot Nation and the generator.

File

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### 3. DESCRIPTION OF WASTE GENERATION

- A. Waste Treatment Process: Since 2005, AHR has operated a biomedical waste treatment facility in Pittsfield, Maine, accepting biomedical waste from Maine Hospital Association members and various other generators including laboratories, medical practices, dentists and veterinary practices. Wastes accepted for treatment include non-anatomical human wastes from surgery, autopsy and patient care, including blood, tubing, bandages, intact glass and plastic bottles suction canisters and lab media and sharps, including needles, vials, slides, blades, scalpels, staples and empty syringes. Waste accepted for treatment is placed in a single treatment vessel and steam heated to 284 degrees F. at 40 psig, rendering the waste non-infectious. Up to 1,600 pounds of waste may be treated in each 50-minute cycle. Each treatment cycle is monitored and records are maintained at the treatment facility. If a treatment cycle is interrupted for some reason, the treatment process is initiated from the beginning to ensure the waste is rendered non-infectious. Efficacy testing is conducted monthly as a measure of successful disinfection of the waste under normal operating procedures at the treatment facility.

In accordance with 06-096 CMR 900.18(F)(3), sharps (syringes, scalpels, etc.) are segregated from other medical wastes, treated in the sterilization unit, shredded to be rendered unrecognizable and finally placed in the bulk compactor with the other treated biomedical waste stream.

The AHR facility receives other medical wastes at the Pittsfield facility. These include human pathological waste, animal carcasses, trace chemotherapy and cytotoxic wastes. Upon delivery to the AHR facility, these wastes are segregated and temporarily stored in a freezer unit and shipped to a different disposal facility. These wastes will not transported from the AHR facility to the Juniper Ridge landfill for disposal. At no time will the treatment facility receive or dispose of hazardous, universal or radioactive wastes, nor will these wastes be disposed of at the Juniper Ridge Landfill.

- B. Designation as Special Waste: 38 MRSA §1303-C(29) and 06-096 CMR 400.1(Hhh) state, in part, "Solid waste means useless, unwanted or discarded solid material with insufficient liquid content to be free flowing, including but not limited to rubbish, garbage, refuse-derived fuel, scrap materials, junk, refuse, inert fill material, and landscape refuse, but does not include hazardous waste, biomedical waste, septic tank sludge, or agricultural wastes ...". During the December 10, 2009 meeting with interested parties, an individual stated that if

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biomedical waste is not solid waste, it should not be disposed of in the Juniper Ridge Landfill.

The Department finds that in accordance with 06-096 CMR 900.19(E), the Board of Environmental Protection has designated treated biomedical waste that results from non-incineration treatment technologies approved under the Biomedical Waste Management Rules as special waste. The AHR facility utilizes a non-incineration treatment technology that is approved under the Biomedical Waste Management Rules (Department Order #O-221-BD-A-N, as modified per Department Order #O-221-BD-B-M). The Juniper Ridge Landfill is licensed to accept special waste, with Department review and approval. Therefore, if approved by the Department, treated biomedical waste generated by AHR may be disposed of at the Juniper Ridge Landfill.

- C. Quantity of Waste Proposed for Disposal: The applicant has requested approval for the disposal of approximately up to 5,000 tons per year of treated biomedical waste from the AHR facility. Department Order #S-01987-WU-NB-N, dated June 20, 2005, approved the ongoing disposal of approximately 2,000 tons per year of treated biomedical waste from the AHR facility. Both the Department and several interested parties asked for an explanation for the increased amount of waste proposed in the current application. In response, AHR provided figures for December 2009 that showed the facility was treating 257 tons per month of biomedical waste. In April 2010, the WMDSM Crossroads Landfill received 231 tons of treated waste from the AHR facility. Annualized, these figures translate into 3,090 and 2,770 tons per year, respectively. This is consistent with the facility's current operational schedule of two 8-hour shifts working six days a week, potentially generating up to 3,900 tons of treated waste. Further, as currently configured, and assuming the facility operated 24 hours per day and 365 days per year, AHR stated that the facility could process up to 7,000 tons per year waste. The proposed 5,000 tons reflects 71% of the potential maximum treatment capacity of the facility and allows for potential fluctuations in the amount waste accepted at the facility. Finally, in the event of a pandemic outbreak, the AHR facility may see a rapid increase in the amounts of biomedical waste needing treatment prior to disposal, necessitating the need for the increased disposal capacity of treated waste at the Juniper Ridge Landfill.

The Department finds that the treated biomedical waste is a special waste as defined by the Board of Environmental Protection and that the types and volumes of waste proposed for disposal, based on current and projected generation rates, are acceptable for disposal at the Juniper Ridge Landfill. The Juniper Ridge Landfill will not accept human

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pathological waste, animal carcasses, trace chemotherapy or cytotoxic wastes from the AHR facility.

#### 4. WASTE GENERATED WITHIN THE STATE

According to information provided by AHR in December 2009, the AHR facility accepts biomedical waste from hospitals and other facilities in Maine as well as Vermont and Canada. Based on the December 2009 data, 34.9% of the waste accepted for treatment at the AHR facility is from facilities located in Maine. It is expected that AHR may accept waste from other out-of-state generators in the future. Several of the interested parties commented that Department Order #S-20700-WD-N-A and the Operating Services Agreement between the State Planning Office and the Juniper Ridge Landfill operator, Casella Waste Systems, state that waste that is generated outside Maine will not be accepted for disposal at the Juniper Ridge Landfill. Specifically, "The Department received comments from the public regarding specific wastes and whether they would be regarded as in state or out of state wastes. The Department responded that FEPR and ash from incinerators in Maine, as well as a limited amount of bypass, would be considered waste generated in Maine, but that waste delivered from out of state to another facility (such as a transfer station, or a compost facility if no processing occurs) for transfer to WOTL in its original form would be considered waste generated outside Maine."

[Department Order #S-20700-WD-N-A, page 38] Further, 38 MRSA §1310-N(11) states, in part, "... a solid waste disposal facility owned by the State may not be licensed to accept waste that is not waste generated within the State." Since AHR accepts waste from out-of-state generators for treatment, the treated waste is not waste generated in Maine and should not be permitted to be disposed of at the Juniper Ridge Landfill. Some of the interested parties stated that the Maine portion of the waste is waste generated in Maine and may be eligible for disposal at the Juniper Ridge Landfill.

The Department finds that 38 MRSA §1310-N(11) defines "waste generated within the State" to include "...residue and bypass generated by incineration, processing and recycling facilities within the State ..." Further, 06-096 CMR 409.1(A) defines a *processing facility* as "...any land area, structure, equipment, machine, device, system, or combination thereof, other than licensed incinerators, that is operated to reduce the volume or change the chemical or physical characteristics of solid waste. Processing facilities include but are not limited to facilities that employ shredding, baling, mechanical and magnetic separation, and composting or other stabilization techniques to reduce or otherwise change the nature of solid waste. Processing facilities include, but are not limited to, facilities that:

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- (1) Shred automobiles, white goods, scrap metal, machinery, vehicles, tires, demolition debris, wood waste or other similar materials;
- (2) Shred, separate, or otherwise increase the heat input value of municipal solid waste to produce refuse-derived fuel;
- (3) Compost, aerobically digest, anaerobically digest, air dry, heat dry, heat treat, lime stabilize, pelletize, chemically treat, irradiate, pasteurize, or otherwise reduce pathogens or stabilize residuals, including dewatered septage, to render the residual suitable for agronomic utilization in accordance with the standards of Chapter 419;
- (4) Process solid waste to render the waste suitable for beneficial use in accordance with the standards of Chapter 418."

The Department also finds that 38 MRSA §1303-C(39) defines *treatment* as "...any process, including but not limited to incineration, designed to change the character or composition of any hazardous waste, waste oil or biomedical waste so as to render the waste less hazardous or infectious." Clearly, while *processing* refers to solid waste and *treatment* refers to hazardous waste, waste oil or biomedical waste, the terms are synonymous in that the waste is undergoing some form of physical, chemical, biological or stabilization transformation. Any distinction in the two terms is administrative to distinguish between the types of waste being handled, not the action of converting, processing, treating or transforming the waste. In fact, the word "processing" is used in 06-096 CMR 900.6(W) [in reference to incineration of biomedical waste] and 06-096 CMR 900.18(E)(2) [in relation to the design of treatment facilities]. Finally, while the AHR facility does receive wastes from out of state sources, the treated waste proposed for disposal at the Juniper Ridge Landfill is not "...in its original form..." as it has undergone the sterilization process, and, in the case of the sharps, the grinding process, prior to disposal.

Therefore, the Department finds that the residue resulting from the treatment of biomedical waste, as generated by the AHR facility, is a waste generated within the State of Maine, in accordance with the provisions of Department Order #S-20700-WD-N-A and as defined in 38 MRSA §1310-N(11) and may be accepted for disposal at the Juniper Ridge Landfill.

## 5. WASTE HANDLING PROCEDURES

The treated biomedical waste will be managed at the landfill in a manner similar to the way non-friable asbestos is currently managed. A shallow area within the working waste

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area will excavated, the treated waste will be deposited and then covered with surrounding waste material or daily cover. Several interested parties expressed concern that vectors, such as birds, may spread the waste beyond the limits of the landfill, posing a risk to human health and the environment. Additionally, interested parties commented that the shredded waste will pose a risk that the wind will blow the waste offsite, that the treated waste would not be commingled with the other wastes at the landfill in conformance with Item 12 of the Special Waste Application and that the generator and landfill operator do not have the technical ability to properly manage this waste. Specifically, parties comment that Casella had problems with radioactive waste at a facility in Massachusetts, that thousands of unintentional deaths in hospitals due to medical errors point to issues with waste handling protocols and that AHR has a lengthy list of past violations.

The Department finds that the treated waste is not putrescible, that the immediate covering of the treated waste and the ongoing lethal and non-lethal measures currently used at the landfill to control birds at the landfill will minimize access to the waste by vectors and minimize wind-blown waste from leaving the limits of the landfill and that the sharps, shredded in accordance with 06-096 CMR 900.18(F)(3), will not pose a hazard as wind-blown litter. The Department clarifies that Item 12 of the Special Waste Disposal Application addresses the issue of stability of the landfill in relation to the treated waste and other wastes in the landfill, not that treated waste would be commingled, incorporated or mixed together with other wastes in the landfill as part of the waste placement plan. The Department also finds that AHR has trained its generators in proper waste segregation procedures, that medical errors due to faulty waste handling protocols are beyond the scope of review of the Department, that AHR has corrected the violations documented in an Administrative Consent Agreement dated May 2008 and has had no documented violations of the Biomedical Waste Management Rules since that date.

Department staff submitted comments to the landfill operator regarding schedule of deliveries of the treated waste, training of landfill personnel in recognizing untreated waste, procedures for rejecting loads of waste and procedures for managing treated waste that is uncovered during the installation of gas or leachate systems within the landfill. The operator responded that deliveries of treated waste are scheduled on a daily basis, depending on AHR's operational rates and maintenance downtimes, that landfill



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personnel have received general training in the proper management of biomedical wastes and specific training from the generator in recognizing untreated biomedical wastes, that the landfill supervisor would be notified immediately if an unacceptable load of waste was delivered to the landfill and that it would be returned to the generator and that efforts would be made to place treated waste in areas where future excavation was not anticipated and that any waste uncovered during excavation would be covered over following completion of the excavation.

The Department finds that the waste handling procedures proposed by the applicant will minimize the spread of waste by vectors and adequate procedures are in place to identify and manage untreated waste that may arrive at the disposal facility, provided the treated waste is covered immediately upon placement on the landfill.

BASED on the above Findings of Fact, and subject to the Conditions listed below, the Department makes the following CONCLUSION:

The ongoing disposal of approximately up to 5,000 tons per year of treated biomedical waste from the AHR, Inc. biomedical waste treatment facility, as proposed by the STATE OF MAINE, STATE PLANNING OFFICE, will not pollute any waters of the state, contaminate the ambient air, constitute a hazard to health or welfare or create a nuisance.

THEREFORE, the Department APPROVES the noted application of the STATE OF MAINE, STATE PLANNING OFFICE, SUBJECT TO THE ATTACHED CONDITIONS, and all applicable standards and regulations:

1. The Standard Conditions of Approval, a copy attached as Appendix A.
2. The invalidity or unenforceability of any provision, or part thereof, of this license shall not affect the remainder of the provision or any other provision. This license shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.
3. The Juniper Ridge Landfill shall not accept human pathological waste, animal carcasses, trace chemotherapy or cytotoxic wastes from the AHR facility.

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4. The treated waste shall be covered immediately following placement in the landfill.

DONE AND DATED AT AUGUSTA, MAINE, THIS 30<sup>th</sup> DAY

OF June, 2010

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: \_\_\_\_\_

*David P. Littell*  
David P. Littell, Commissioner

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES.

Date of initial receipt of application: 10/13/2009.

Date of application acceptance: 10/28/2009.

Date filed with Board of Environmental Protection:

This Order prepared by Michael T. Parker, Bureau of Remediation and Waste Management.

XMP70698/dlb

